

Applicants: Philip O. Livingston and Friedhelm Helling
Serial No.: 08/196,154
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deleted material is in brackets and the inserted material is underlined is attached hereto as Exhibit A:

--78. (Amended) A composition which comprises:

J¹
I¹
a) a conjugate of i) a ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin or a derivative thereof comprising an e-aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in a subject;

wherein the ganglioside derivative is a derivative of a ganglioside selected from the group consisting of GM2, GM3, GD2, GD3, GD3 lactone, O-acetyl GD3 and GT3; and

wherein in the conjugate the ganglioside derivative is conjugated to Keyhole Limpet Hemocyanin or the derivative thereof through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the e-aminolysyl group of Keyhole Limpet Hemocyanin or the derivative thereof.--

J² 93.
I²
(Amended) A method of stimulating or enhancing antibody production in a subject which comprises administering to the subject an effective amount of a composition which

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comprises:

a) a conjugate of i) a ganglioside derivative which comprises an unaltered oligosaccharide part and an altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin or a derivative thereof comprising an ϵ -aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in the subject;

wherein the ganglioside derivative is a derivative of a ganglioside selected from the group consisting of GM2, GM3, GD2, GD3, GD3 lactone, O-acetyl GD3 and GT3; and

wherein in the conjugate the ganglioside derivative is conjugated to Keyhole Limpet Hemocyanin or the derivative thereof through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the ϵ -aminolysyl group of Keyhole Limpet Hemocyanin or the derivative thereof, so as to thereby stimulate or enhance antibody production in the subject.--

--95.

(Amended) A method of [preventing or] treating a cancer in a subject which comprises administering to the subject an effective cancer [preventing or] treating amount of a composition which comprises:

a) a conjugate of i) a ganglioside derivative which comprises an unaltered oligosaccharide part and an

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altered ceramide portion comprising a sphingosine base, to ii) Keyhole Limpet Hemocyanin or a derivative thereof comprising an e-aminolysyl group;

b) a saponin derivable from the bark of a Quillaja saponaria Molina tree; and

c) a pharmaceutically acceptable carrier;

the relative amounts of such conjugate and such saponin being effective to stimulate or enhance antibody production in the subject;

wherein the ganglioside derivative is a derivative of a ganglioside selected from the group consisting of GM2, GM3, GD2, GD3, GD3 lactone, O-acetyl GD3 and GT3; and

wherein in the conjugate the ganglioside derivative is conjugated to Keyhole Limpet Hemocyanin or the derivative thereof through a C-4 carbon of the sphingosine base of the ceramide portion of the ganglioside derivative to the e-aminolysyl group of Keyhole Limpet Hemocyanin or the derivative thereof, so as to thereby [prevent or] treat a cancer in the subject.--

I³
--96. (Amended) The method of claim 95, wherein the cancer is of epithelial origin.--

I⁴
--97. (Amended) The method of claim 95, wherein the cancer is of neuroectodermal origin.--

I⁵
--99. (Amended) The method of claim 93 or 95, wherein the administering is effected at two or more sites.--